Executive Engineer,
Yelahanka Division,
Bruhat Bengaluru Mahanagara Palike

e – MEASUREMENT BOOK

(FIFTH AND PART)

Name of the Package:

Restoration and Improvements of Roads from Doddaballapura Main Road to Nagarjuna College, Kaveri Layout, Chowdappa Layout, Maruthinagara, Hariraja Layout and Surrounding Areas in Ward No - 03 of Yelahanka New Town Sub Division (PACKAGE NO -12)

AGENCY: Sri. H Srinivas Reddy

Estimate Cost: 1000.00 Lakhs

Project Management Consultants:
SAPIENCE CONSULTANTS AND ENGINEERS, BANGALORE.
#B9-003, GANGA, Jnanabharathi Enclave, Valagerahalli, Mysore Road Bangalore 560056
Ph: 080-29523634; E-Mail: SAPIENCEBANGALORE@GMAIL.COM

BRUHAT BANGALORE MAHANAGARA PALIKE

BILL FORM

NAME OF WORK:- Restoration and Improvements of Roads from Doddaballapura Main Road to Nagarjuna College, Kaveri Layout, Chowdappa Layout, Maruthinagara, Hariraja Layout and Surrounding Areas in Ward No - 03 of Yelahanka New Town Sub Division (PACKAGE NO -12)

Contractor / Agency: Sri. Sreenivasa Reddy **JOB CODE: 003 - 22 - 000006**

FIFTH and PART

Item No	Description of Work	Unit	Bill of Qunatites	Previous Measurement		Present Measurement			Total Up-to-Date	
				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount
1	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading to tippers, trimming bottom and side	Cum	5008.80	5008.80	323468.70	0.00	64.58	0.00	5008.80	323468.70
	Qty Red in pg no EMB - 1 to 2									
2	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete	Sqm	16696.00	15188.76	97512.32	0.00	6.42	0.00	15188.76	97512.32
3	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed	Cum	2504.40	2278.32	4590514.69	0.00	2014.87	0.00	2278.32	4590514.69
4	KSRRB M600-1.Providing and Constructing dry lean cement concrete mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at	Cum Cum	656.78	656.78	2694045.88	0.00	4101.90	0.00	656.78	2694045.88
5	Constructing un-reinforced,plain cement concrete for pavements using Grade concrete M30 over a prepared	Cum Cum	656.78	656.78	3737505.11	0.00	5690.65	0.00	656.78	3737505.11
6	KSRB 4-1.6: Providing and laying in postion **Plain cement concrete of Mix 1:2:4 with OPC @ 240kgs,** with 20mm and down size graded granite metal coarse aggregates @	Cum Cum	115.58	86.05	524031.59	0.00	6089.85	0.00	86.05	524031.59
7	KSRB 4-1.3 : Providing and laying in position **plain cement concrete ofg Mix 1:4:8 with opc @180kgs,** with 40mm	Cum Cum	991.05	879.18	4990216.89	0.00	5675.99	0.00	879.18	4990216.89
8	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal	Cum Cum	6735.85	5685.74	1236250.45	0.00	217.43	0.00	5685.74	1236250.45
	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at	Cum	1894.04	1546.27	11592726.37	0.00	7497.22	0.00	1546.27	11592726.37

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				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount
10	KSRRB M 2200-6 Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending,	Tonr	114.16	102.40	8289244.26	0.00	80948.07	0.00	102.40	8289244.26
11	Providing and Fixing pre cast covering Slab of 100mm thick made out of CC jelly 20mm and down size with steel	Sqm	5337.00	4523.79	8781671.62	0.00	1941.22	0.00	4523.79	8781671.62
12	Providing and fixing RCC precast cover slab of 230mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel	Sqm	67.20	67.20	304473.79	0.00	4530.86	0.00	67.20	304473.79
13	Providing and fixing pre cast solid cement concrete kerb stones made out of C.C 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in	No	19940.74	9300.00	4062240.00	0.00	436.80	0.00	9300.00	4062240.00
14	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with	Sqm	2075.50	0.00	0.00	0.00	85.65	0.00	0.00	0.00
15	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications (P.No.-155,I.No.-20.18)	Cum	2298.80	1813.04	3664675.00	198.54	2021.29	401306.92	2011.58	4065981.92
	QTY Recorded vide in 15th EMB pg NO – 3 to 4									
16	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and sparying primer at the rte of 0.60 kg /sqm using mechanical means complete as per specifications .Clause 502 of MoRTH V th Revision (pg No.158 I.No-21.6), Issue Rate	Sqm	10499.50	9065.19	310573.00	992.70	34.26	34009.90	10057.89	344582.90
	QTY Recorded vide in 15th EMB pg NO - 5 to 6									

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				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount

Item No	Description of Work	Unit	Bill of Qunatites	Previous Measurement		Present Measurement			Total Up-to-Date	
				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount
17	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of materials , labour, HOM complete as per specification P.No.-158,I.No-21.7,Issue Rate	Sqm	27929.50	16043.50	206159.00	11886.00	12.85	152735.10	27929.50	358894.10
	Qty Recorded vide in this EMB Pg No. 9 to 10									
18	KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with mechanical paver Gr-II (50mm to 75mm) with 4.5% VG-30 bitumen with all lead and lift and as per the direction of Engineer in-charge.I.No.-21.17.6,Pg.No.- 160 ,Data Rate	Cum	1396.48	802.17	5908603.00	594.31	7365.73	4377527.00	1396.48	10286130.00
	Qty Recorded vide in this EMB Pg No. 11 to 12									
19	*Providing and laying Bituminous concrete , using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision - using 40-60 TPH capacity HMP with mechanical paver grading II (30-40mm) with 5.4% of VG-30 bitumen .Page no-162 It. No -21.22.6*	Cum	1052.24	641.74	5477134.00	410.50	8534.82	3503543.61	1052.24	8980677.61
	Qty Recorded vide in this EMB Pg No 13 to 14									

Item No	Description of Work	Unit	Bill of Qunatites	Previous Measurement		Present Measurement			Total Up-to-Date	
				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount
20	KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface / Concrete Surface :- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications .MoRTH Specifications No.803(Pg.No-182,I.No.24.15,	Sqm	1298.20	755.25	346879.00	396.20	459.29	**181970.70**	**1151.45**	**528849.70**
	Qty vide Recorded in this EMB Pg NO -15, Le 17									
21	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer (Page No.187. Item No.24.41), SOR 2018-19	No	1193.85	672.00	242451.00	370.00	360.79	**133492.30**	**1042.00**	**375943.30**
	Qty vide Recorded in this EMB Pg NO. 18									

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Ramesh LE

Sahib

Item No	Description of Work	Unit	Bill of Qunatites	Previous Measurement		Present Measurement			Total Up-to-Date	
				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount

Item No	Description of Work	Unit	Bill of Qunatites	Previous Measurement		Present Measurement			Total Up-to-Date	
				Qty	Amount	Quantity	Rate	Amount	Quantity	Amount
	TOTAL CONSTRUCTION COST				67380375.67			8784585.53		76164961.20
	GOODS AND SERVICE TAX at 12%				8085645.08					8085645.08
	GOODS AND SERVICE TAX at 18%							1581225.40		1581225.40
	NET AMOUNT PAYABLE				75466020.75			10365810.93		85831831.68

Certificate

1 The above work has been Completed satisfactorily
2 The debris has been removed and disposed from the work spot.
3 No. departmental issues are made to the contractor

Contractor

Assistant Engineer
Yelahanka New Town Sub Division
BBMP

Asst. Executive Engineer
Yelahanka New Town Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP